

WHAT IS CLAIMED IS:

1. An amplifier for converting a charge signal,
comprising:

5 a signal converting circuit for converting a charge
signal from a sensor by an effect of a detecting target and
by a converted signal into a voltage signal; and
an automatic correction circuit for detecting a leakage
of the charges generated in a signal transmission system and
10 for automatically correcting an output level of said signal
converting circuit so that the output levels are the same at
the start timing and the end timing for generating the
charges of said sensor.

15 2. The amplifier for converting a charge signal
according to Claim 1, further comprising:

a reset circuit for discharging an input charge by an
external signal.

20 3. The amplifier for converting a charge signal
according to Claim 2, wherein:

the sensor is a cylinder pressure sensor for detecting
a combustion pressure in an engine cylinder.

25 4. The amplifier for converting a charge signal

according to Claim 3, wherein:

the external signal is synchronous with a rotational angle of a crankshaft of the engine and the input charge of said signal converting circuit is discharged at each 5 predetermined combustion cycle.